

IN THE CLAIMS:

1. (Currently Amended) A dual mode transceiver, comprising:  
~~at least one~~a mixer; and  
a controller configured to adapt the transceiver to operate in two modes operating either as a radio frequency tag reader or as a Bluetooth transceiver by changing reception and transmission capabilities of the transceiver, wherein the controller is configured to control the ~~at least one~~ mixer to operate in both of the two modes, wherein the ~~at least one~~ mixer is useable for said transceiver operating as said radio frequency tag reader or as said Bluetooth transceiver.
2. (Previously Presented) The dual mode transceiver of claim 1, wherein said Bluetooth transceiver is useable as a transceiver for a 2.4 gigahertz industrial, scientific and medical band radio frequency tag reader system.
3. (Previously Presented) The dual mode transceiver of claim 1, wherein said transceiver comprises an integrated circuit.
4. (Previously Presented) The dual mode transceiver of claim 1 for said use in said electronic device comprising a mobile terminal device.
5. (Currently Amended) Radio device having a radio receiver and a radio transmitter wherein operability of said device is by using a single antenna in two modes, wherein said device is configured to operate in a bluetooth mode and a radio frequency tag reader mode by control of ~~at least one~~a same mixer of said receiver ~~and/or~~ of said transmitter to operate said ~~at least one~~a same mixer in both of the two modes, said radio receiver and said radio transmitter comprising a single transceiver that is operable as a bluetooth transceiver using said single antenna in said bluetooth mode and as a radio frequency tag reader using said single antenna in said radio frequency tag reader mode by control of its reception and transmission capabilities.



6. (Previously Presented) The radio device of claim 5, wherein said operability of said radio device in either mode is by using said radio receiver and said radio transmitter.
7. (Previously Presented) The radio device of claim 5, wherein said radio device is incorporated in a device having additional device functionality.
8. (Previously Presented) The radio device of claim 7, wherein said device in which said radio device is incorporated comprises a mobile telephone.
9. (Previously Presented) The radio device of claim 5, wherein said radio device is for installation in a mobile telephone.
10. (Currently Amended) Apparatus comprising a transceiver including a radio receiver; and a radio transmitter, and further comprising a signal processor, wherein the radio receiver is responsive to an incoming analog radio signal for providing a down converted and modulated signal to said signal processor, wherein the radio transmitter is responsive to an output signal from said signal processor for transmission as an outgoing analog radio signal, said apparatus further comprising a controller for controlling said apparatus in two modes, a first mode for operating as a Bluetooth device and a second mode for operating as a radio frequency tag reader wherein said radio receiver and said radio transmitter comprise a single transceiver that is configured to operate with a single antenna as said radio frequency tag reader or as a Bluetooth transceiver by controlling ~~at least one~~ a same mixer of ~~both~~ said receiver ~~and/or~~ said transmitter to operate in both the first mode and the second mode.
11. (Currently Amended) A control for controlling a radio device in two modes, a first mode for operating as a Bluetooth transceiver and a second mode for operating as a radio frequency tag reader wherein said radio device comprises a single transceiver controlled by said control to operate as said radio frequency tag



reader or as said Bluetooth transceiver by changing its reception and transmission capabilities by controlling ~~at least one~~a mixer to operate both in the first mode operating as a mixer for the radio device operating as said Bluetooth transceiver and in the second mode operating as a mixer for the radio device operating as said radio frequency tag reader.

12. (Previously Presented) Mobile telephone, comprising the transceiver of claim 1 in combination with means for communicating with a radio access network over a radio interface.

13. (Previously Presented) The mobile telephone of claim 12, wherein said means for communicating includes a signal processor and a mobile telephone transceiver.

14. (Currently Amended) Method, comprising,  
switching a mode of a single transceiver able to operate as a radio frequency tag reader in one mode and as a Bluetooth transceiver in another mode by adapting ~~at least one~~a same mixer of said single transceiver to operate in both modes, and  
using a single antenna for said single transceiver operating as said radio frequency tag reader or as said Bluetooth transceiver.

15. (Previously Presented) The method of claim 14, wherein said single transceiver is both for interrogating a radio frequency tag and for participating in a Bluetooth piconet.

16. (Previously Presented) The method of claim 15, wherein said single transceiver and said single antenna are for use in a mobile telephone and wherein said method further comprises operating a mobile telephone transceiver of said mobile telephone over a radio interface to a radio access network.

17. (Previously Presented) The dual mode transceiver of claim 1, wherein a single antenna is useable for said transceiver operating as said radio frequency tag reader or as said Bluetooth transceiver.

18. (Previously Presented) The control of claim 11, wherein said single transceiver is configured to operate with a single antenna when operating as said radio frequency tag reader or as said Bluetooth transceiver.

19. (Currently Amended) The dual mode transceiver of claim 1, wherein said controller is configured to control the ~~at least one~~ mixer to operate with a different gain and bias current according to mode of operation as a radio frequency tag reader or as a Bluetooth transceiver.

20. (Currently Amended) The apparatus of claim 10, wherein said controller is configured to control the ~~at least one~~ mixer to operate with a different gain and bias current in said first mode than in said second mode.

21. (Currently Amended) The control of claim 11, wherein said control is configured to control the ~~at least one~~ mixer to operate with a different gain and bias current in said first mode than in said second mode.

22. (Currently Amended) The method of claim 14, wherein said adapting said ~~at least one~~ same mixer of said single transceiver to operate in both modes comprises adapting a first selected gain and bias current in said one mode and a second selected gain and bias current in said other mode.